THE SCIENTIFIC AMERICAN.

THF ADVOCATF OF INDUSTRY AND ENTERPRISE, AND JOURNAL OF MECHANICAL AND OTHER IMPROVEMENTS.

VOLUME I.] NEW-YORK, THURSDAY, SEPTEMBER 10, 1846. [NUMBER 50.

THE
SCIENTIFIC AMERICAN,
The Advocate of Industry and Enterprise, and Journal of Mechanical and other Scientific Improvements,
PUBLISHED EVERY THURSDAY, AT 128 FULTON ST. (SUN BUILDING,) NEW YORK,
BY MUNN & COMPANY.

RUFUS PORTER,—Editor.

Alice Gray.

BY ONE OF THE "BOYS."

She isn't what I painted her—
A thing all hearts to win—
I saw no beauty when I found
She hadn't got the "tin;"
I loved her upwards of a week—
But found it wouldn't pay;
So I "took my hat and went ashore,"
Aud cut Miss Alice Gray.

Her dark brown hair was all a sham;
Her forehead powder'd white—
One eye an artificial one,
The other far from bright;
Oh, she may twine her purchased curls
She musn't look this way—
My heart is far from breaking
For the love of Alice Gray.

I've sunk a very pretty sum
In rides and sweetmeats past,
And havn't now the first red cent—
She drained me to the last;
How green I was, in earnest grave,
I certainly must say;
I shall be cut by all the "b'hoys"
For courting Alice Gray.

BONIFACE'S ADDRESS TO THE RUMMERS.

Sots, wi' noses fiery red,
Sots, whose pockets long have bled,
Who can boast a rum-swelled head,
Still contend for rum!

Steam it still by day and night,
Yield not up that glorious right,
And with temperance tyrants fight;
Nerve yourselves with rum.

ACROSTIC.

G et out of that, greeny, and keep yourself clear
O f all the gum games that are practised here;
T he watchman may nab you, and then you will find,
H e'll just walk you up to police—therefore mind;
A nd if you've no business requiring your stay,
M ake good your retreat, and get out of harm's way.

TERRIBLE CONFLICT AND LOSS OF LIFE.—We are informed that the beautiful town of Hopkinton was disturbed on Tuesday afternoon, says the N. Y. Telegraph, by one of the most brutal fights which ever took place. It seems that the parties were neighbors, and had been on friendly terms for a number of years; but accidentally meeting in a whortleberry pasture, the assailant, who had a stout and robust frame, without the least apparent provocation, attacked his neighbor, and so close and fierce was the contest, that both parties used their teeth. During the fight, which lasted about twenty minutes, the weaker party had his shoulder broken, and was left for dead on the spot. The almost lifeless body was carried home, and ceased to live in about an hour. It is proper, however, to add, that notwithstanding this quarrel, the deceased had always sustained a good character, and was considered a very excellent *dog*.

CLOSING THE ACCOUNT.—A rum seller's bill, in Massachusetts, on which was endorsed, "closing the account," ran thus at the latter end:

Dr. —— ——,

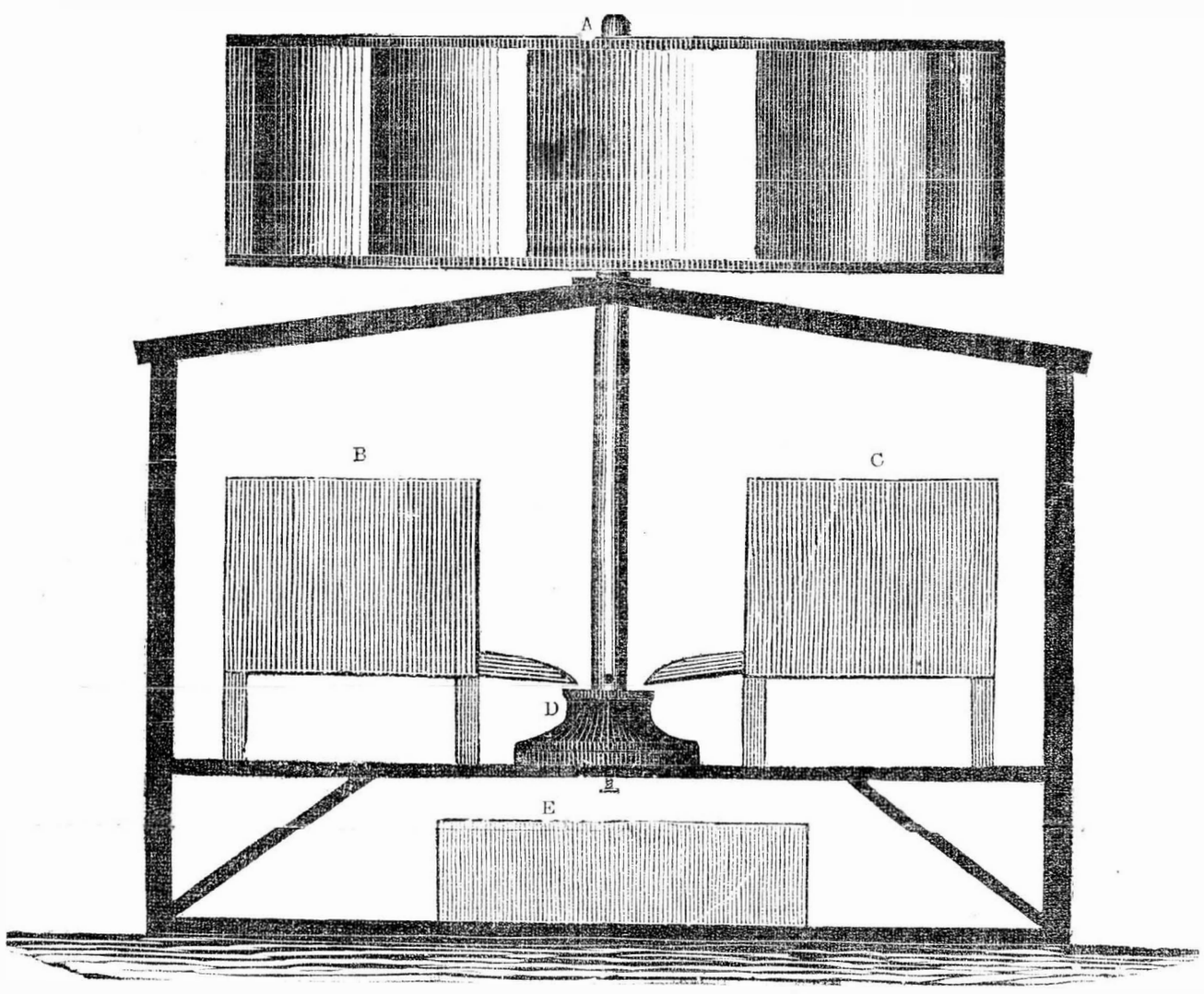
	To —— —— ——
To 1 quart of rum,	12 1-2
6 candles,	6
1 quart of rum,	12 1 2
Half bushel of potatoes,	18
Starch,	3
1 quart of rum,	12 1-2
Pint of gin,	18 3-4

— yards of cotton for winding-sheet ——

"THREE CHEERS"—LUDICROUS SCENE.—One Sunday, recently, during high mass at twelve, in the village of Glentarff, Ireland, three ladies of the Protestant faith were obliged to take shelter from one of those heavy summer showers which so frequently occur in the south of Ireland. The officiating priest, knowing who they were, and wishing to appear respectful to them, stooped down to his attendant, who was on his knees, and whispered to him, "three *chairs* for the Protestant ladies." The clerk, who was rather an ignorant man, sto (and shouted out to the congregation, "three cheers for the protestant ladies!" which the congregation immediately took up, and gave three hearty cheers, while the clergyman actually stood dumb-founded.

RAILROADS IN FRANCE.—A Paris letter in the Boston Atlas says that when the 2,619 miles of railroad, now constructing, can be added to the 906 miles already completed, France will possess three thousand five hundred and twenty-five miles, forming, as her future Regent recently remarked, at the inauguration of the Northern Line, "a noble girdle, whose links are destined henceforth to bind more closely the outposts of the capital, and to reflect, as well as receive, new rays of glory and prosperity." Every city in the kingdom will be within a day's journey of the centre of power and movement, nor is it easy to form even an idea of the gradual transformation which will be effected on the intellectual and moral condition of the people by his new species of communication.

THE DOMESTIC CORN-MILL.



INTRODUCTION.—It is generally admitted by farmers, that the cost of sending their corn and grain to mill is not less than twelve cents per bushel, besides the millers toll, which is worth six cents more. This expense amounts to the considerable sum of one hundred and eight dollars in grinding 600 bushels. Nearly the whole of this expense may be saved by means of the Domestic Corn Mill, which has been recently invented and proved by actual operation. This is operated by the wind, and requires no attendance only to put up six or eight bushels of corn into a box, to be ground and transferred to another box whenever the wind blows by night or day. The entire cost of a mill of this kind, including the house, will not exceed one hundred dollars.

EXPLANATION.—The wind wheel, A, is of the most cheap, simple, and permanent construction, though very powerful in operation. It is called the spiral wheel, and consists of a series of spiral or curved floats or sails arranged between two plain discs; each float extending in a curved form from the periphery of the wheel to a point, the distance of which, from the centre of the wheel, is equal to one-third of the radius thereof; thus leaving an open area in the centre, through which the wind may pass and escape through the opposite spaces, at the same time operating by reaction on the wheel as it escapes therefrom. The mill-house here represented has a flat conical roof, through the centre of which passes the vertical shaft; and to the bottom of this shaft, is attached a cast iron mill, D, of simple construction, and which is supplied with either corn or grain occasionally, from either of the hoppers, B or C: the corn being conducted to the centre of the mill, through moveable horizontal spouts or channels, which are vibrated or shaken by means of minute projections (not represented) from the upper surface of the mill. A plain trough or box, E, placed under the mill to receive the meal from the mill, completes the simple arrangement. A mill of this kind is not expected to grind more than two or three bushels of corn per day: but as it requires no personal attendance, it fully answers the purpose intended. These mills have been proved by actual operation; but as the inventor is too deeply engaged in other business to devote much attention to them, he will give an extensive interest therein to any person who will devote his attention to the construction and introduction thereof. Apply at this office.

BLAZING THE WAY.—Every one accustomed to live in a new country, is aware that the first settlers are in the habit of blazing the trees all along the new roads that they lay out—a process which is nothing more nor less than cutting a small piece of bark from each tree. By this means they can ever keep the road, rain or shine. A friend, says the New Orleans Picayune, tells a good story of a backwoodsman he met a day or two since in one of our principal streets. The chap had a large piece of chalk in his hand, with which he marked all the most prominent buildings he met with. Anxious to ascertain his object, our friend inquired his roason for thus chalking the fronts and doors as he passed. "Why, the fact is," replied the backwoodsman, "I got considerably snarled up here yesterday—was lost for two hours, and liked never to have found my flatboat again for the turnings and windings. When I came out to-day, I thought I would *jest bluze my way* as I went along, so that I could find my road back. You don't catch this particular individual being lost again in your doubling and twisting streets, any way you can fix it."

A YOUNG TRAVELLER.—We saw yesterday morning a young lad about fifteen years of age, named William Bordell, who had just arrived in this city from Illinois, having started in June, and travelled the whole distance on foot, passing through Indiana, Ohio and Western Pennsylvania, following the National Road. He was on his way to New York city, where his friends reside, and which he proposes to reach in the same way. We learn that he left New York eighteen months since, where he followed the occupation of a "news boy," and having saved a considerable sum of money determined to make a tour through the country, which he has done, on foot, and a greater part of the time alone—traversing a greater portion of the Western States. He is certainly one of the "Bo-hoys," and if energy and enterprise will make a man, he is surely destined to be one. Success to him, wherever he may go.—*Balt. Clipper.*

AMIABLE SIMPLICITY.—"Miss Brown, I have learned how to tell fortunes," said a young fellow to a fading spinster. "Just let me have your hand, if you please?" "La! Mr. White, how sudden you are! Well, go and ask my father!"

A NEW WAY.—A young man having entertained a tender passion for a young woman, and feeling such insurmountable diffidence as to prevent his ever disclosing it to the fair empress of his heart, resolved on an expedient to bring the business to an issue. He went to the clergyman and requested that the bans of marriage might be published, according to law. When the publication was brought to her ears, she was filled with astonishment, and went to him to vent her resentment. He bore the sally with fortitude, observing that if she did not think proper to have him, he could go to the clergyman and forbid the bans. After a moment's pause she took wit in her anger, and said, "as it has been done, it is a pity that a shilling should be thrown away."

A SAILOR ALL OVER.—An eye-witness in Baltimore tells the following:—A few days since a jolly son of the ocean was about being put on board an outward bound ship, for which he had previously entered, when he asked leave to have another run up town. Being informed that he could not be permitted to go, as the ship was about sailing, he sung out to a man on the wharf, an entire stranger to him, "here, my friend," throwing him a silver dollar, "spend that for me—I'll do as much for you another time." Jack never gives up while there is a shot in the locker.

PRODUCE OF THE UNITED STATES.—The Commissioner of Patents estimates the number of bushels of wheat raised in the United States for the year 1845, at 106,648,000, which is equal to 21,309,600 barrels of flour, allowing five bushels per barrel. Besides this there were produced of barley 5,160,600 bushels; oats, 163,208,000; rye, 27,175,000; buckwheat, 10,268,000; corn, 417,890,000; potatoes, 88,392,000; hay, 14,065,000 tons; flax and hemp, 35,500 tons: tobacco, 187,422,000 lbs.; cotton, 936,088,000 lbs.; rice, 88,765,000 lbs.; silk cocoons, 486,530 lbs.; sugar, 226,026,000 lbs.

GOING INTO IT.—We hear that in less than a month at least twenty young women of our acquaintance intend going into the married state.—Nothing like it that we know of—it is the greatest invention of the age—marriage is. It is ahead of all other luxuries in the world.—*Alb. Knick.*

THREAD LACE.—The exquisitely fine thread which is made in Hainault and Brabant, for the purpose of being worked into lace, has occasionally attained a value almost incredible. A thousand to fifteen hundred francs is no unusual price for it by the pound; but some has actually been spun by hand of so exquisite a texture as to be sold at the rate of ten thousand francs, or upwards of £1000 for a single pound weight. Schools have been established to teach both the netting of the lace and drawing of designs by which to work it; and the trade at the present moment is stated to be in a more flourishing condition than it has been before even in the most palmy days of the Netherlands.

A RARE PLANT.—On Saturday, Geo. B. Richardson, of Cambridge, exhibited at Horticultural Hall, in Boston, a rare plant in full bloom. The *Yucca serultata*, or dagger plant, a native of Mexico, Florida, and other of our extremely Southern States. This is one of the rarest of the Yucca species, and is the first that has flowered here. It forms a part of the chapparels with which our army have had to encounter in Mexico. Each leaf is a dagger, and its edge a saw. A man could as easily march through a battery of spring bayonets, as a tree of this kind.—*Wor. Spy.*

ANECDOTE.—A gentleman rode up to a public house in Saugerties, and inquired for the landlord. "I'll call him," replied a demure looking person at the bar, and rang the bell. Presently a servant came. "Where's your mistress?" inquired he. "She went off with Jack half an hour ago, in the wagon, to see about purchasing a load of grain." "Well, sir," said he inside the bar to the gentleman. "I suppose I'm the landlord, as my wife' gone out!"

THINGUMFULLS.—A lady at the Springs, lately being desirous of obtaining the recipe for making a certain pudding, to be met nowhere but at Congress Hall, applied to the superintendent for the same. It was immediately furnished in the following clear and conspicuous terms:—"Take a few eggs, a quantity of milk, a thingfull of currants, a thingfull of meal, a thingfull of wine, three thingsfull of flour, and sweeten to your taste."

A LIST OF PATENTS ISSUED FROM THE 23RD MAY TO 13TH JUNE, 1846.

(Continued from No. 50.)

To Joshua Hobart, of Dubuque, Iowa, for improvement in the Mining Auger: patented May 23d, 1846.

To William G. Wing. of New Bedford, Mass., for improvement in hot air Furnaces: patented 23d May.

To Jeremiah Darling, of Adrian, Mich., for improvement in Rotary Bellows: patented 23d May.

To William Reade, of New York city, for improvement in machines for reaming faucets: patented 23d May.

To William Y. Singleton, of Springfield, Ill., for improvement in ditching machines: patented 28th May.

To Frederick Haviland and Ebenezer Tuttle, of Waterville, Me., for improvement in water-wheels: patented 28th May.

To John Perrins, of Philadelphia, for improvement in jacquard looms: patented 28th May.

To Ebenezer Barrows, of New York city, for improvement in registers for furnaces: patented 28th May.

To John R. Remington, of Lowndes County, Ala., for improvement in ditching machines: patented 28th May.

To Charles Low, of England, for improvement in the Manufacture of iron and steel: patented 28th May.

To Matthias W. Baldwin, of Philadelphia, for improvement in combining the steam whistle with the boiler: patented 28th May.

To William H. Baker & Henry R. Worthington, of Brooklyn, for improvement in balancing valves of steam engines: patented 28th May.

To John B. Clute, of Schenectady, N. Y., for improvement in cooking stoves: patented 28th May.

To Charles L. Mecch, of Preston, Conn., for improvement in plough clevices: patented 28th May.

To Richard F. Stevens, of St. Louis, Mo., for improvement in the rotary steam engine: patented 30th May.

To Henry F. Baker, of Boston, for improvement in boiler furnaces: patented 30th May.

To Daniel Carmichael, of Brooklyn, and Jason C. Osgood of Chittenango, N. Y., for improvement in dredging machines: patented 30th May.

To Thomas W. Harvey, of New York city, for improvement in machinery for cutting screws: patented 30th May.

To David Anthony, senr., of Union Springs, N. Y., for improvements in plows: patented 30th May.

To Julius Fink, of Philadelphia, for improvement in cooking ranges: patented 30th May.

To Edwin Owen, of Byron, Ia., for improvement in cane cutters: patented 30th May.

To James Johnson, of Wooster, Ohio, for improvement in plows: patented 30th May.

To John M. Cullen, of Benton, Miss., for improvement in plows: patented 30th May.

To Elkanah Ingalls, of Providence, R. I., for improvement in steam boilers and furnaces: patented 30th May.

To James Black, of Philadelphia, for improvement in rotary steam engines: patented 30th May.

To Fred. W. Howe, of North Chelmsford, Mass., for improved apparatus for Measuring and marking cloth upon looms: patented 6th June.

To Albert G. Bagley, of New York city, for improvement in pen and pencil Holders: patented 6th June.

To Martin H. Mansfield, of Mifflintown, Pa., for improvement in clover hulling machines: patented 6th June.

To Henry Slade, of Chelsea, Mass., for improvement in Stoves: patented 6th June.

To Peter Von Schmidt, of Washington, D. C., for improvement in impregnating timber: patented 6th June.

To William H. Starr, of New York city, for improvement in lamps: patented 6th June.

To Jacob Peter, of Kensington, Pa., for improvement in the cap spinner: patented 6th June.

To Joseph Battin, of Philadelphia, for improvement in gas burners: patented 6th June.

To A. B. Spencer, of Newton, Ohio, for improvement in machines for dressing saws: patented 6th June.

To J. J. Greenough, of Washington, D. C., for improvement in machinery for boring and morticing hubs, (assigned to George Nichols, of Bridgeport. Conn.): patented 13th June.

To John Du Bois, jr., of Cascade, Pa., for improvement in apparatus for retarding sleighs in descending inclinations: patented 13th June.

To R. D. Granger, of Albany, N.Y., for improvement in cooking stoves: patented 13th June.

To Joseph A Gregg, of Derry, N. H., for improvement in snow plows for railroads: 13th June.

USEFUL TO THE LADIES.—One of the most important of all household duties, is to keep the door nobs, the lamps, the spoons, the plate, "and all that sort of thing," in brightly polished order. If, instead of the water and chalk, and preparations, ladies will use camphine oil and rotten stone, a far brighter, more durable, and quicker polish can be obtained, than in any other way. Camphine is the article used for producing the exquisite polish of the daguerreotype plates, and nothing has ever been found to equal it.

A SEVERE JOKE.—A well-known physician in town is very much annoyed by an old lady, who is always sure to accost him when she meets him in the street, for the purpose of telling over her ailments. She met him the other day in Broadway, when he was in a great hurry. "Ah! I see you are very feeble," said the doctor; "shut your eyes and show me your tongue." She obeyed, and the doctor moving off, left her standing there for some time in her ridiculous position, to the infinite amusement of all who witnessed the scene.

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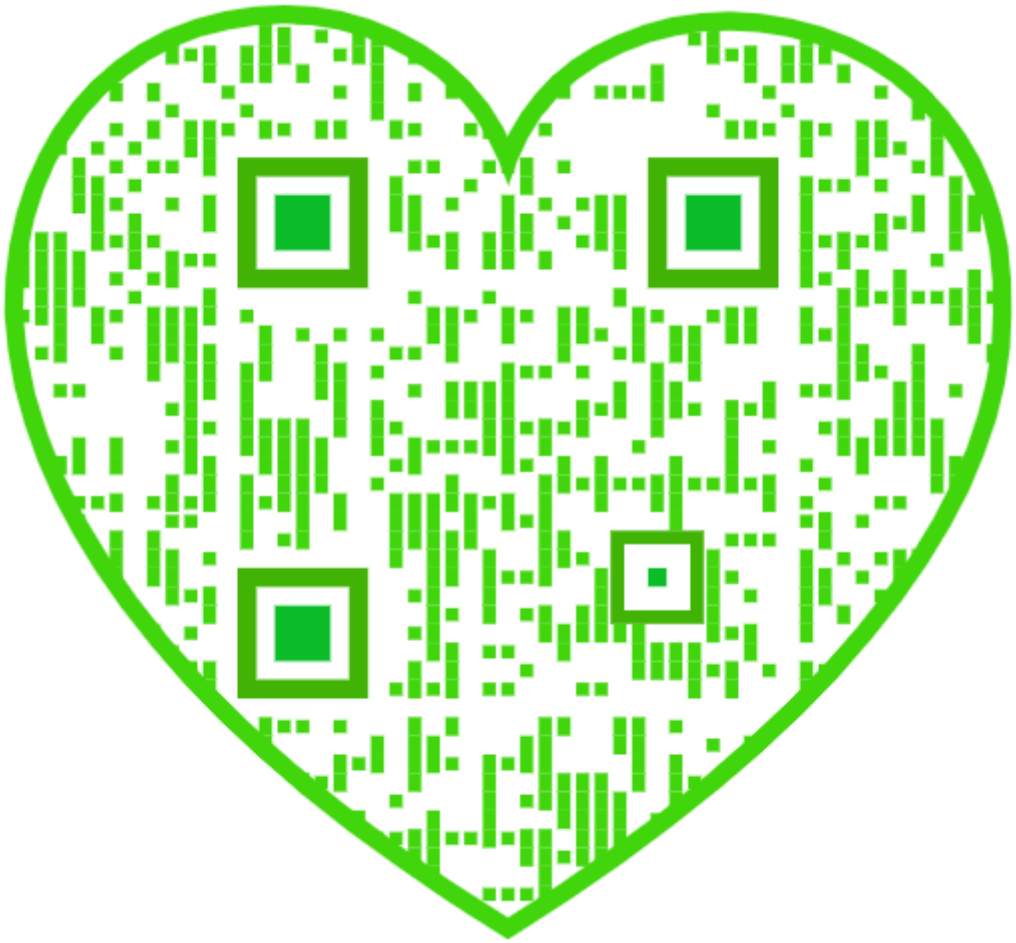
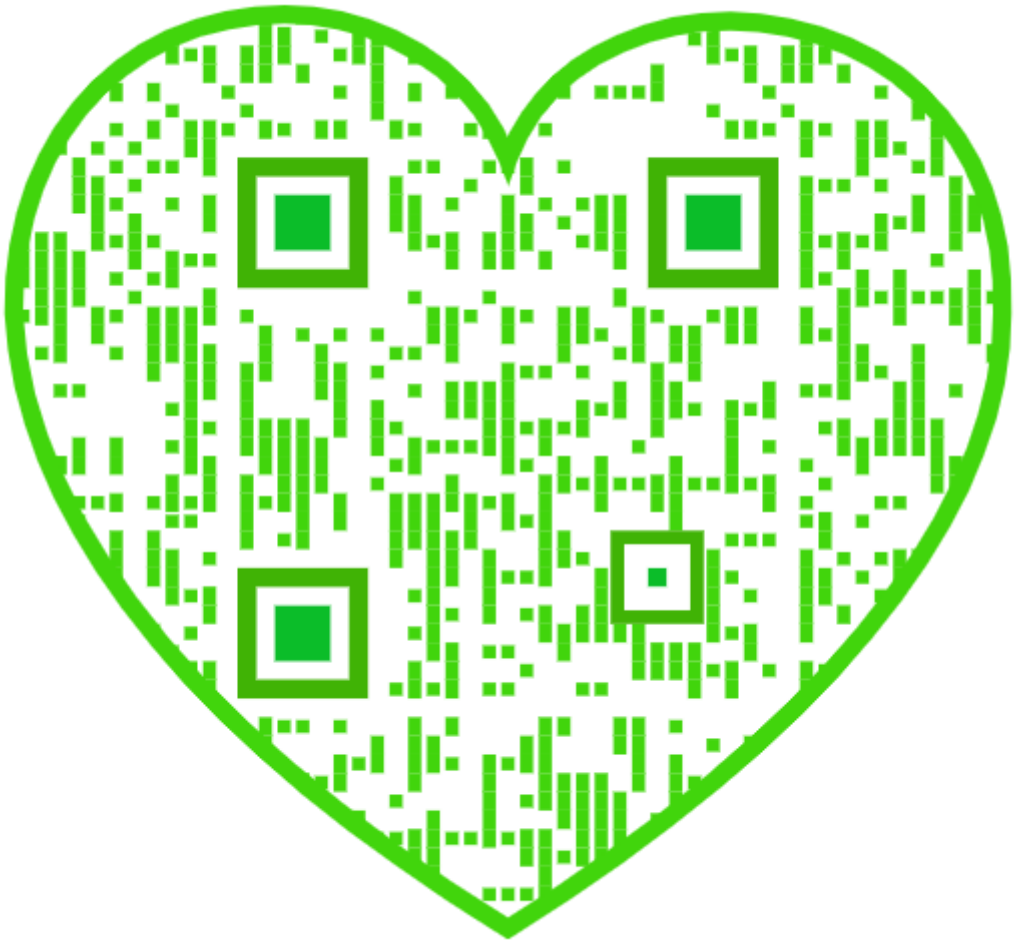




SCIENTIFIC AMERICAN

NEW-YORK, THURSDAY, SEPT. 10.

ENLARGEMENT OF THE NEW YORK Scientific American.

SECOND YEAR!

New Arrangements,

QUARTO FORM!

New and Beautiful Type!

The Publishers of the SCIENTIFIC AMERICAN beg leave to announce the commencement of the SECOND YEAR of their Journal. The first Number of the Second Volume will be issued on Saturday, September 26th, 1846. The paper will hereafter be conducted under a system of

ENTIRELY NEW ARRANGEMENTS

calculated to improve it in a vast degree.

In the first place it will appear in a handsome

QUARTO FORM,

rendering it much more convenient for preservation, as well as FOR BINDING,—and therefore more valuable.

In the second place, it will be printed on

NEW TYPE AND FINE PAPER!

This, together with a number of elegant engravings, published each week, will render it one of the most beautiful specimens of typography ever issued in America.

In regard to the CONTENTS of the *Scientific American*, the following will give an idea of what may be expected:

I.

ENGRAVINGS.—Each Number will contain from THREE to SIX ORGINAL ENGRAVINGS on the most interesting subjects, consisting of DRAWINGS of NEW INVENTIONS, Illustrations of the various ARTS, SCIENCES, TRADES, MANUFACTURES, &c. &c. The cost of so many new engravings, each week, is a heavy item. Much care will therefore be taken to select only THE BEST SUBJECTS.

II.

NEW INVENTIONS.—By means of a resident correspondent at Washington, in a measure connected with the PATENT OFFICE, our subscribers will always receive the first notices of any NEW INVENTIONS. Other arrangements for the purpose of securing the first intelligence of IMPROVEMENTS, &c., are in operation. The latest FOREIGN INVENTIONS will also be published.

III.

SCIENTIFIC INFORMATION.—In this department unusual care will be bestowed. Aside from the facilities already attained in this country, the Publishers have secured the services of an able Foreign Correspondent, now in Europe, to furnish the LATEST and BEST Scientific Information which can be obtained, as well as to forward other notices of the most interesting subjects.

IV.

ARTS AND TRADES.—Much valuable INSTRUCTION in various Arts and Trades, derived from the best sources, is frequently given. By means of this, any person may become familiar with the manner of making, and cost, of many articles in common use.

V.

MECHANICS.—Valuable essays and illustrations of the Science of Mechanics are often given.

VI.

CHEMISTRY.—Considerable attention will be paid to this very useful subject. Interesting articles, together with CURIOUS EXPERIMENTS are frequently published.

VII.

ARCHITECTURE.—Full instructions in regard to the best method of constructing buildings of all kinds. bridges, &c., will be given from time to time, together with the latest improvements in this art. To the Farmer, Mechanic, and indeed all, this will be found of much advantage.

VIII.

GARDENING.—Practical Instructions in regard to the art of Gardening, will be given in proper season, embracing the latest improvements, &c.

IX.

THE MISCELLANEOUS INTELLIGENCE will be found of more than usual interest. It will consist of notices of the progress of Mechanical and Scientific Improvements, descriptions of CURIOSITIES, together with a SHORT SUMMARY of PASSING EVENTS, and a great variety of other interesting Intelligence.

X.

This paper is especially entitled to the patronage of MECHANICS and MANUFACTURERS, being devoted to the interests of these classes. It is particularly useful to FARMERS, as it will not only apprise them of IMPROVEMENTS in AGRICULTURAL IMPLEMENTS but INSTRUCT them in various MECHANICAL TRADES, and guard them against impositions. As a FAMILY NEWSPAPER, it will convey more USEFUL Intelligence to children and young people, than five times its cost in school instruction.

TERMS.

The SCIENTIFIC AMERICAN is furnished to subscribers at $2 per annum, ONE DOLLAR IN ADVANCE. Five copies will be sent to one address six months, for Four Dollars in advance.

Persons wishing to subscribe, have only to enclose the amount with name and residence, in a letter directed to

MUNN & COMPANY,

Publishers of the "SCIENTIFIC AMERICAN,"

NEW YORK.

☞ All letters must be POST PAID.

Arts and Trades.

TEMPERING EDGE TOOLS.—After the tool has been properly forged without burning or injuring the steel, in order for a good temper, it should be carefully heated in a fire made with wood or charcoal, till it is of a red color, and then plunged into clean cold water in a perpendicular direction. If the temper is to be that of an edge tool, the steel must then be made bright, by grinding or scouring with a coarse stone, and held over the fire until it is of a deep yellow or straw color. This is the proper temper of edge tools, the most difficult part of which process, is, to give the steel the least possible degree of even heat, to give it the greatest possible degree of hardness and strength. If the heat is continued beyond this exact degree, the pores of the steel will be so opened as to render it brittle with but a small degree of hardness: hould the heat be carried beyond this degree, by inattention, or accident, the evil will not be remedied by letting it cool down to this color, before it is cooled in the water; in this case it will be necessary to hammer the tool over again, in order to settle the pores of the steel together. The greatest care should therefore be taken in hardening a tool, not to heat it too hot, as its goodness depends more on this circumstance than is apprehended. Care should also be taken that it does not remain in the fire after it has acquired a proper heat; as even without a greater degree of heat, the fire will soon coat it over with a thick scale, which will prevent the water from cooling it so quickly, as is necessary to render it as hard as possible.

Many small tools, such as punches, broaches, &c. for clock and watch makers, may be tempered by the simple process of heating as above directed, and cooling them in hot water, a little below boiling heat. This temper gives small tools great strength and a proper degree of hardness. Very small drills are best heated by a candle, with a blow pipe, and cooled in tallow. Their temper is to be taken down the same as an edge tool. Tools for turning iron and steel, receive a much greater degree of hardness by being cooled in quicksilver instead of water. This method of hardening must be valuable to clock and watch makers, as well as to many other mechanics, who want tools as hard as possible.

The temper of a spring, after it is carefully hardened, is obtained by holding it over the fire with tallow till it blazes and burns off; the burning of the tallow should be continued for a minute or two on those springs which from their use are liable to break. Small springs, and other articles to be tempered spring temper, are more conveniently tempered in a sheet-iron pan, or case with tallow, held over the fire until it blazes, when it is to be taken off and carefully shaken while the tallow continues burning.

Saws and many other common tools which require a file to sharpen them, pinions and arbors in clocks and watches, surgeon's instruments except those designed for cutting, bayonets, sword blades, gun sticks and various other articles are of this temper.

Iron may be hardened by the process of what is called case-hardening. This is performed by inclosing the iron in an air tight case, with charcoal dust and salt, and heating the same red hot for one or two hours, and cooling it in clean cold water. The hammers and many other parts of gun locks are hardened in this manner. If the process is properly managed, iron and steel may be hardened without even altering the smooth surface of the instruments the advantage of which is sufficient to induce the greatest attention in giving it the exact degree of heat.

GREAT MORAL INFUENCE.—We extract the following excellent sentiments from an article on the subject of the management of our State Prisons, in a recent number of the *New York Sun*. It is our candid conviction that the dissemination of such sentiments in the column of a neutral and independent secular paper, in which people are accustomed to look for candid and unbiassed expression of sentiment, and which is read by at least a hundred thousand persons, will have been conducive of more extensive salutary influence than the weekly preaching of all the reverend clergy in this great city:—

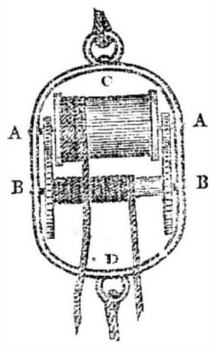
"There are some who would not throw away a thought on the condition of a convict, who consider his punishment as justly merited, and that his treatment should be harsh, his punishment brutal, and his fare of the coarsest kind. We, on the contrary, consider imprisonment, not a *punishment*, but a means of *reform*, and while strict discipline should be enforced, it should be mingled with discretion and controlled by humanity. We go for the *soothing* system in all prisons, and will not consider any convict as irreclaimable. We would therefore, try to preserve him from the influence of vice, both in reading and conversation. . . . The Bible is the greatest of all books—moral, religious, and historical; a book which, even in the hands of the vicious, exercises a good influence." &c.

EXTRAORDINARY ADVANCE OF GENIUS.—A few years ago the Rev. Mr. Gallandit of Hartford, Ct. was accosted by an indigent boy who stated that he had run away from the workhouse because they would not teach him to read, and expressed a desire to find a place where he could work for his board and learn to read. The gentleman took the boy's case in hand, and he advanced so rapidly in mathematical science as to win several prizes, and having visited and gained much applause in France, has recently received a rich present and request from the Emperor of Russia to visit St. Petersburg.

DOGIANA.—A city paper relates that a fine spaniel, *muzzled* according to law, was taking a promenade in the streets, a few days since, when to his great consternation, the muzzle dropped off. Knowing that without a muzzle his life was in imminent danger, after a moment's reflection, he seized the muzzle in his teeth, arranged it in a way to look as natural as possible, and trotted off home as quick as he could go!

ENTERPRISE ON THE LAKES.—A new propeller, called the Genessee Chief, has arrived at Milwaukie from Rochester. She is 143 feet extreme length, 26 feet breadth of beam, and 9 1-2 feet hold. Her saloon and state rooms are in the style of the best steamboats. She is expected to run from Oswego to Chicago and back, allowing full time for stoppages at the intermediate ports, in 24 days.

Science of Mechanics.



HOISTING HEAVY ARTICLES.—The progress of improvement in some branches of Mechanics, is exceedingly slow. In the rigging of vessels, for instance, there has been but very few improvements introduced for the last forty years. The blocks and pulleys are in most cases precisely the same. Yet it may be easily made to appear that a tackle-block or purchase may be constructed with less than the ordinary expense, which will give a much greater advantage in hoisting ponderous articles than any in common use. In the cut which heads this article, two horizontal axles with pivots at the ends, A, A, and B, B, have their bearings in an iron strap which has an eye C, at the top, and another D, at the bottom. On the axle A, is a drum, round which is coiled a small rope; and at each end of the drum is a small pinion. On the axle B, are two geer-wheels, the teeth of which take to those of the pinions. Another rope is attached to this axle by one end, while the other end passes down and through a block with a single pulley, and up again to the eye D. Now we suppose the drum to be ten inches in diameter, and the pinions two inches: the geer-wheels fourteen inches, and the axle D, two inches. Then a force of one lb. being applied to the small drum-rope, would be equal to five lbs. on the teeth of the geer-wheels, and thirty-five lbs. on the ropes of the axle D; and this force being doubled by the single pulley, would produce a force on the weight attached below, equal to 70 lbs. Thus one man alone would be able to hoist a package weighing 7000 lbs. Yet it is well known that with a pair of the ordinary three-pulley blocks, a man can only hoist eight times his weight, or a little more than one ninth part as much as he could by this improved method. A machine of this construction would be found vastly more convenient for hoisting goods in stores, than the wheel and axle which is in general use for that purpose; and much more convenient inasmuch as this purchase could be attached to the arm of a crane, which would admit of its being moved laterally with the weight attached, whenever occasion should so require.

Another Foreign Humbug.

We have so frequently cautioned the public and the press against the gross and contemptible impositions which frequently appear in foreign journals, and purport to be authentic representations of the wonderful capacities or performances of new mechanical inventions, which in fact never had any existence but in the imagination of some wonder-making penny-a-liner, that we should not have noticed the following, from the "Galignani's Messenger," had it not appeared without coment or remark, in what purports to be an American scientific paper, the "Railroad Journal," published in this city. We shall not copy the entire article. however, but enough of it to show that it was written by an ignoramus, and presents nothing new except what is incompatible with established principles of mechanical science:

INSTANTANEOUS STOPPING OF A RAILWAY TRAIN.—We stated yesterday that we had received an invitation to be present at some experiments with a new *break*, having for its object the instantaneous stoppage of a railroad train without the slightest shock to the passengers, and that it was our intention to attend. The experiment took place yesterday afternoon at 49 bis., in the Rue Chaussee d'Antin, on a model railway constructed for the purpose. The inventor is an engineer named Alexandre, who has been, it appears, assiduously occupied for four years in bringing the invention to perfection. A model train was let off at different rates of speed, from fifteen to twenty leagues an hour, down a very inclined plane, and yet, notwithstanding these circumstances, the train was checked without the slightest commotion. The *break* [brake] is worked by the conductor of the last carriage, by which means the whole of the carriages, instead of striking each other, have a tendency to *retreat*," [recede?]

It is moreover stated that such is the contrivance, that when the locomotive has become detached from the train, and has proceeded to the requisite distance ahead, it will suddenly stop, &c., and the writer might have added that if a passenger's hat chances to fall out of a window, the train will immediately *retreat* to the precise spot at which the accident occurred. But the idea of instantly stopping a train from a speed of fifty miles, without any commotion or shock to the passengers, will be found quite sufficient for the credulity of American mechanics, at one dose.

THE PANAMA CANAL PROJECT.—It has for several months, not to say years, been a matter of incomprehensibility to us, that the French should persist in this project of constructing a canal from the Atlantic to the Pacific oceans, while there has been such palpable demonstration that ship-railroads must inevitably take the preference: but certain recent developments throw much light on the subject, by representing that the mountains through which the canal is (or was) to be cut, are supposed to abound in native gold. All probability of the completion of the great commercial enterprise, is therefore ended.

DESTRUCTION OF THE ENGLISH TELEGRAPH.—The Electric Telegraph in England has been destroyed, and its operations entirely suspended, by lightning. It appears that instead of adopting Morse's beautiful and original American pen system, they constructed a dial system, but the lightning from the clouds shattered the dial, the Telegraph stations, and most of the posts on which the wires were suspended. The enterprise has been abandoned for the present.

New Inventions.

IMPROVEMENT IN THE RAILROAD BRAKE.—This improvement was invented by Wm. Clayton, and entered at the Patent Office, Aug. 18. It is so constructed as to gripe the rims of the wheels and apply the friction to the sides thereof instead of the peripheries. This is an ingenious arrangement, but as a sufficient friction may be produced by the ordinary brake to prevent the rotary motion of the wheels, and cause them to slide on the rails, it is difficult to understand what peculiar advantages may be derived from this new arrangement.

IMPROVEMENT IN LOOMS.—This improvement is calculated for weaving two or three ply ingrain carpeting. It was invented by E. B. Bigelow; patented Feb. 18th. The inventor claims as original in this invention, the combination or organization of mechanism applied to each sword of the lay for operating the lay, and for the purpose of preventing the roller from wearing to such an extent as to improperly perform its office in the groove of its cam, when the lay or reed thereof is required to be kept stationary during the throw of the shuttle, the said combination consisting of the grooved cam (fixed upon the cam or lay shaft) the cam or passage (made through or upon the sword of the lay,) and the respective rollers, the same being arranged and made to operate together. He also claims the combination of four sets of shuttle box and reciprocating pendulous or vibratory or moving frames (by which they are sustained and moved from the front towards the rear of the loom, and vice versa) as constructed, arranged and operating together and with respect to the lay of a loom and each other, the same being for the purpose of weaving two or three ply plain or shot about ingrain carpeting, or other fabrics. Also, in combination with the shuttle binders of each series of shuttle boxes, and the hook of the ordinary stop motion of the loom, the mechanism or organization by which he is enabled, in the employment of the several series of vibrating shuttle boxes, to arrest the operations of the loom whenever a shuttle is thrown and does not properly enter its intended shuttle box; the side mechanism or organization of parts consisting of the cam, arms, and shaft from which they project, the arm with its projections, the arms and springs of either shaft or other equivalents thereto, while the elements or members of the combination are made up of the above parts, and such additional parts as may be simply necessary to their operation. He also claims in its application to the plate, and the vibrating frame of shuttle boxes, immediately adjacent to it, a spring or moveable guide plate.

IMPROVED BAROMETERS.—Peter Armand Lecomte de Fontaine Moreau, entered at the Patent Office, on the 20th August, a new mode of constructing barometers, in which he claims the application of flexible air-tight diaphragms of any material sufficiently elastic, and of any form which will produce the desired result, that is to say, to measure the pressure of fluids, gases, &c., by the deflections of the said diaphragm.

IMPROVED SOFA BEDSTEADS.—The points of improvement claimed by the inventor, Mr. John Needham, are the construction of a sofa-seat cushion on a hinged frame provided with a mattress below it, so that when this frame is thrown open, the mattress on this frame shall constitute a bed independent of the sofa cushion, and in combination with the mattress made on the permanent frame below. Also; making the sofa cushion and one of the mattresses on opposite sides of the same frame, in combination with springs interposed and held in place between two swabbings or cloths, so that the same springs shall answer for the mattress and sofa cushion, without affecting one of them when the other is in use. Also; the manner of connecting the legs with the hinged frame by means of a slot and pin in combination with the socket, so that when the legs are drawn out, they can be folded into recesses, or rebates in the frame, and when pushed, they will be held to prevent them from folding over. Entered at the Patent Office August 18th.

IMPROVED WOOD-SCREWS.—This is an invention by Mr. Thomas J. Sloan, of this city, and is called the "Threaded Conical-point Wood-screw." Its peculiarity consists in its conical form, the thread being gradually diminished to the end. Every carpenter will understand that these screws will not require more than half the labor to drive them, though they will hold even better than the common wood-screw.

NEW HORSE-RAKE.—This invention is called the "Revolving Wire-tooth Horse-rake," and its peculiarities consist in part, in a revolving shaft from which the teeth project, and an arrangement of studs above, which take to one or more slotted springs, by means of which the shaft and teeth are held in the required position. except when the shaft is required to revolve, to release the accumulated hay. This improvement was invented by H. S. Doolittle, and entered August 22.

IMPROVED DERICK FOR RAISING HEAVY BODIES.—This improvement was entered August 22nd, by A. D. Bishop. Some knowledge of its construction may be gathered from the inventor's claim, namely: "Making the boom to extend back of the mast, which turns in an elevated standard, in combination with the mode of bracing it, by means of a brace rod connected with the base of the standard by a roller and rail, to admit at the same time of turning the boom. Also, the mode of constructing the standard by making it of three posts tied together to form an equilateral triangular pyramid, in combination with the system of diagonal braces, whereby the structure is rendered stiff and unyielding to resist vertical and oblique thrusts and all tendency to twist.

A RARE SPECIMEN.—A solid boulder of native copper brightly washed by the water, and studded all over with projecting particles of silver, and weighing five pounds, was lately fished up by Capt. Parke, from the bottom of Bad River, Mich.

VARIETY

The famous dance called the "Polka," lately revived and brought into vogue, in consequence of the similarity of its name to that of our President, is proved to have been invented and published as early as 1588.

It is stated that the fortifications of the city of Paris, when completed, will have cost more than the value of the entire State of Massachusetts. It will probably be superseded by some change in the mode of warfare, and rendered useless.

The prevalence of excessive heat, the present season, appears to have been nearly universal; even the summit of Mont Blanc, in Switzerland, is cleared from snow for the first time within the century.

The Romanists boast of large accessories to their ranks from the Protestant churches. This is not lamentable since most of the Protestant have become more inconsistent than their mother (Roman) church.

The *Montreal Herald* represents that such a state of anarchy and violence prevails in that city that it is not safe for a citizen to leave his house after dark. There is too much liberty.

A pond of 50 acres in West Springfield, Mass., has lately changed from a pure transparency to a dirty yellow color, supposed to have been occasioned by the recent earthquake.

A friend of ours, who has a great fondness for extraordinary phenomena, lately complained that tornadoes, great hailstorms and earthquakes so plenty in other places never happen in New York.

A bold and important enterprise was projected and put in actual operation in 1673, by which a regular mail was carried once a month, through the entire route between New York and Boston.

A Mr. Austin has realized the enormous sum of $225,000 this session, from his services as an advocate before the railway committees of the British Parliament. This is talking to some purpose.

The Greenlanders have discovered that the immense quantities of ice with which their country abounds, is a saleable article in Europe. A cargo of 110 tons has been lately taken to London.

The new Pope is said to have declared his determination to be governed and guided by the principles inculcated in the New Testament. Should he prove sincere in this it will revolutionize the church.

In consequence of the drought and heat in Canada, the mill streams have become dry, and farmers who have plenty of wheat on hand are compelled to buy flour for their families subsistence.

An Irishman in writing a love-letter, with a proposition of marriage, closed with the following reasonable request: "If you reject my proposition, please to return this letter unopened."

The principal officers of the Navy have at length consented to the introduction of certain liberal and democratic reforms, in place of the arbitrary aristocracy hitherto persisted in by that class.

The timber used in the construction of a bridge across the Danube, by the Emperor Trajan, was found to be sound after having stood in the water upwards of sixteen hundred years.

The editor of the Lynn Pioneer, now in prison, perpetrated the following joke in his cell: "A man who has no bills against him belongs to a high order of no-*bill*-ity."

Talleyrand is said hver to have made it a rule to forget his past misfortunes. "Providence," he was accustomed to observe, "has given us our eyes in front in order that we look *before* and not *behind*."

About two thousand miners lately quit work in Minersville, Pa., on account of having their wages reduced one dollar per week. If they persist, it will maturely effect the mining operations.

A French manufacturer has succeeded in producing beautiful paper from a substance separated from the potato in the process of making starch. We can not suppose that the discovery is very valuable.

The Governor of Massachusetts has appointed the 26th day of November next as a day of Public Thanks giving. It was probably the first thing he thought of after his election.

The Matamoras Flag states that the Mexicans catch a runaway soldier by throwing a *tasso* over his head and fetching him up with a twitch as they do the buffalo and wild horses.

There is said to have been at the West, much speculation in the purchase of mules &c. for the Army. One man is reported to have cleared $2700 in 30 days. So the money goes.

Efforts are being made in Massachusetts to establish an asylum for discharged convicts. Abbot Lawrence has offered to contribute $100, provided $2,000 are raised.

The big beet recently presented to the Editor of the Hartford Times, measured two feet in circumference. Its length is not mentioned, but probably about three feet. It weighs fifteen pounds.

A steamboat on the Ohio below Pittsburg was struck by lightning by which the chimneys were thrown down and the top of the pilot house torn off, but without injuring the pilot standing therein.

Two hundred and seventy-eight children, belonging to various schools in London, were lately regaled with a railroad excursion free of charge.—Railroad companies here should be equally liberal.

Ten and a half millions of acres of public lands in various States have been ordered to be sold by the President, during the ensuing fall.

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A Lovely Sight.

I've seen the sun in glory rise
  Above the eastern hill,
Casting a flood of mellow light
  O'er mountain, vale, and rill.

I've seen him at the close of day,
  Refulgent in the west,
'Mid gorgeous piles of golden clouds,
  In glory sink to rest.

I've sat upon the beetling cliff,
  And gazed upon the sea,
"The distant sail, the coming barge,
  The windward and the lee."

I've stood upon the mountain brow,
  And viewed the landscape o'er,
In beauty spread beneath my feet,
  Like fairy scenes of yore.

I've seen of nature's loveliest charms,
  Sights beautiful and rare,
But still there's one more blest than those—
  One more divinely fair.

A fair maid o'er a sick one's couch,
  Administering relief—
Applying balm to every wound,
  And soothing every grief.

Watching with care the painful throb
  That heaves the sufferer's breast,
And yielding with a cheerful heart,
  Her own sweet sleep and rest.

Her heart in sympathy doth bleed
  For pains others endure;
Angels would stop, in swiftest flight,
  To see a sight so pure.

Art hath her charms, and nature too,
  Her beauties chaste and fair;
But oh! I never have seen aught
  That could with that compare.

Wouldst thou seek beauty? go and search
  This earth from east to west;
Thou'lt see it when thou find'st a heart
  That feels for those distressed.

Song.

Banish sorrow, banish grief,
  Murmur not when fortune flies;
Sorrow ne'er will bring relief,
  Joy from weeping ne'er will rise.
Why should we with wrinkled care,
Change what nature made so fair?
  Let us set the heart at rest,
  Of life's troubles make the best.

Busy brains we know, alas!
  Let their thoughts at random run,
Like the sand within the glass,
  Turning still, and still run on;
Never knowing where to stay,
But uneasy every way.
  Let us set the heart at rest,
  Of life's troubles make the best.

Some pursue uncertain wealth,
  Some to honors high aspire;
Give me freedom, give me health,
  That's the sum of my desire;
What the world can more present,
  Will not add to my content.
  Let us set the heart at rest,
  Of life's troubles make the best.

Mirth, when mingled with good will,
  Makes the heart alert and free;
Let the snow or rain distil,
  All's the same throughout to me:
'Tis no use to war on fate,
Changes daily on us wait.
  Let us see the heart at rest,
  Of life's trouble's make the best.

PLENTY OF EMPLOYMENT.—There is in every principal manufacturing town, constant demand for females to work in the factories and as domestics, for which liberal wages are offered. Why then should there be so much complaint of *starving wages*—75 cents per week—paid for work in our large cities? We see but little necessity for starving in this country yet.

A WISE PROVISION.—It is stated by Prof. Stowe that in Berlin, there is an excellent school established in connection with the principal prison, for the especial benefit of the children of those who are imprisoned for crime; these children being supported and educated at the expense of the Government. Why can not American Legislators act as wisely as European Monarchs?

INDIA RUBBER PONTONS.—These articles, calculated for the construction of portable military bridges, have recently been proved very successfully at West Point. It is the opinion of the cadets that the Hudson River might be bridged in an hour and a half, strong enough for an army with ordnance &c. to pass over.

EXCELLENT REMEDY FOR IRON RUST.—"Mister," said a youngster, as he stepped into an apothecary shop the other day, "do you know what is good for taking out iron rust?" "*Scissors*," replied the apothecary, with imperturbable gravity. "Well I guess I'll take a *little*," rejoined the boy.

THE ORANGE TREES.—It has been ascertained that the sweet orange is susceptible of being grafted into the wild bitter orange, and nurseries of orange trees are being cultivated in some of the Southern States on the principle of budding, in the manner of fruit trees at the north.

DIFFERENCE OF SPEED.—The news of the battle of the 8th of January, 1815, was carried from New Orleans to Washington in twenty-five days. The intelligence of Taylor's victories on the Rio Grande, reached Washington in seven days from that place.

Th eat, Profound, and Long-Expected:

The organ of the Association of Inventors has made its appearance, under the title of "EUREKA," and is entitled to our special attention. It appears in the form of a large pamphlet of sixteen pages, stitched and in covers, but with regard to postage, claims to be a mere newspaper, published monthly at $1 per annum—"inflexibly in advance." Published by W. H. Starr, and edited by Messrs. Kingsley and Pirsson, No. 5 Wall street, New York.

With regard to the scientific and literary abilities displayed in this "*Journal of the National Association of Inventors*," we can not better illustrate it than by a few brief extracts from the work it lf .

The first thing we shall notice is the introduction of Hoe's Patent Improved Cylinder Press, which is as follows: "Hoe's Patent Improved Cylinder Press. Hoe's Patent Improved Single (large) Cylinder Press. The subjoined cut is a very good representation," &c.

"This machine is an improvement on the single cylinder Napier press; the first one of these machines used here was imported by Major Noah, we believe, for the *National Advocate*, some eighteen years since. These machines require, when rendered capable of doing good work, and not injuring the types, to be made in the most careful and accurate manner."

We had hitherto supposed that "these machines," were invented and manufactured by Messrs. R. Hoe & Co., of this city: and that when once rendered "capable of doing good work," they would *not* require "to be made," &c.

Under the head of "New Inventions," we observe a notice of a rew article for pavement, as follows:

"A material, or composition, of a very cheap character, has been invented, and hard, strong and compact as flint. It is formed into any desirable shape in the course of manufacture."

This must be an astonishing discovery, and quite equal to the famous silicon or malleable glass. The next is a notice of Hutchins' Propeller, which is thus introduced:

"John Hutchins, of Williamsburg, L. I., has made an ingenious improvement for a propeller. It consists of forming a set of oars, and by cams upon themselves, and a foundation plate with cams to match, cause the oars to revolve of themselves, when the main wheel composed of these oars, revolves."

Without any comments on the above description, we pass over a liberal notice of Sewal Fulsom's Petticoat, to extract a sentence from the history of the progress of the Daguerreotype:

"Shortly after these details reached the United States, by Professor S. F. B. Morse, of New York, who was at the time of the discovery, residing in Paris."

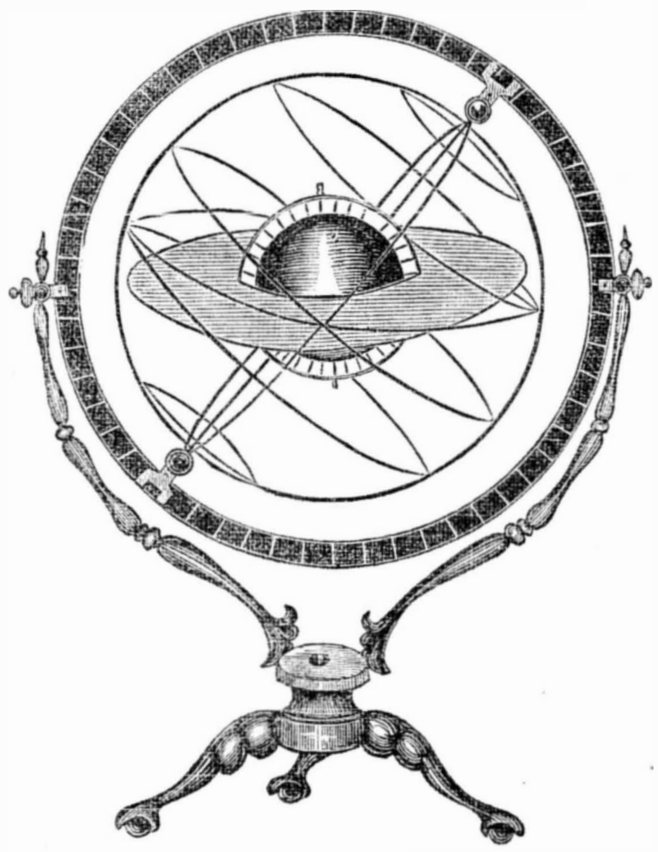
This being rather above our comprehension, we pass to the editorial head, under which is introduced a very respectable list of names of gentlemen constituting an Editorial Committee, with the interesting announcement that "This Committee examine and approve all articles to appear in its columns." Of course the articles will require no criticism. It is proposed to insert advertisements "at reasonable prices considering the advantage to be derived from so extended a circulation as this journall *will, doubtless*, have."!!!

It may be recollected that about six months since, we published a fair notice of the "Nationa! Association of Inventors," with the remark that we *might* give further notice of its proceedings, or might not; leaving the decision to circumstances. The fact is, we had been apprised of the fact that measures were in progress for publishing a new paper as the organ of the Association; and we have ever since. until the present week, been kept in expectation We shall now feel ourselves more at liberty to express our own views of the principles and tendency of said Association, but must defer any further remarks on the subject until our next number, or perhaps the first number of our next volume.

Inventors and Inventions.

It is a matter of wonder to the present generation, that many of our most useful and indispensable inventions in machinery, were not introduced to practical use for ten, twenty, or fifty years after they had been discovered, and their utility demonstrated—among which are steamboats, railroads, and locomotives. The next generation will be no less astonished at the stupidity of the present, in neglecting to avail themselves of the advantages of many no less important inventions, which have been known and proved twenty years since, and of which the practicability and utility have been fully demonstrated and published. We perhaps should not gain much credit by the unqualified assertion, that nine-tenths of the rich men of this enlightened age, and in this enlightened country, are down-right ignoramuses, with regard to the true scientific principles and theory of mechanics:—therefore we will not say it, whatever may be our conviction; but certain it is, that there are now before the public, more than twenty valuable, and some of them immensely valuable, new inventions, the authors of which being poor,—and all first-rate inventors are poor—can not induce the obstinately stupid capitalists, to furnish the means of introducing them, or to take an interest in them at any rate, but rather oppose their introduction, and will only adopt their use, when compelled to do so, as it were in self-defence, after they have been introduced by others. It is not enough for an inventor to construct and put in successful operation, one of his inventions, and call a hundred people to witness its performance:—he must put it into general use, at his own expense and in face of a host of prejudices for years, before he can get the confidence of the public in the utility of his invention, or especially that of those who think themselves among the *wisest* of the community. Would the grave and wise sages of the country, keep themselves as totally ignorant of the courses and channels of vice and mischief, as they are of the mechanical science, even the scientific inventors would be enabled to introduce their own inventions successfully, without depending, as at present, on the assistance of others who are more wealthy.

VALE'S GLOBE AND SPHERE.



This truly scientific invention is so calculated and arranged as to illustrate the various relative positions of the earth, and is found very useful in teaching and learning geography, astronomy, navigation, &c. The outer sphere represents the circles in the heavens, as Eqnator, Ecliptic, Tropics, and Meridians. The globe in the centre represents the earth: the small brass figures at the top and bottom, attached to the meridian, represent a traveller and his antipode: and the broad horizontal surface represents the rational horizon to such traveller. This moves as the traveller moves, always dividing the heavens into the visible and invisible parts to such traveller. Transparent sections of what is called the celestial globe, are occasionally attached to the sphere, and by means of these, the apparent and relative positions of the sun, moon, and planets, may be represented. The cost of one of these instruments, of a convenient size for schools, is only $24, and if the utility thereof was duly appreciated, every city and town would procure them for the use of the schools therein. A specimen may be seen at this office.

Magnetic Telegraph.

The people of Cincinnati, especially the merchants are moving in earnest, for an extension of the telegraph to that city from the Atlantic. Those of Louisville, also, will be ready to secure its extension to that city; and the time is apparently not far distant when every principal town in the Union will be furnished with the most interesting intelligence through these channels. The following article from the *U. S. Gazette* is peculiarly interesting:

"A lively interest is felt by western merchants in this city, in the extension of the telegraph towards the Ohio and Mississippi. It is stated confidently, that any reasonable amount of funds necessary for the work can be readily obtained at Cincinnati, Louisville, and St. Louis, as well as at Pittsburg and Wheeling, which places some agents of the western telegraph company are now about to visit, to ascertain the amount of stock that will be taken. An efficient organization is completed here, to run the line of telegraph rapidly to the Ohio. Hugh Downing, Esq., one of the most efficient business men in Market street, known extensively westward, as well as in this city, is named as the president, and the company is styled the 'Atlantic and Ohio.' Most of the stock is said to be secured, and the balance will not remain long on hand."

COST OF THE TELEGRAPH.—The telegraphic line from Boston to Baltimore, it is estimated, will be five hundred and fifteen miles in length. Its total cost is said to be about $25.000, or an average of about $230 per mile.

DAMAGE BY LIGHTNING.—During a tremendous storm which occurred in Massachusetts last week, twenty telegraph poles, in Westboro', were shattered by lightning. The occurrence was very extraordinary, and should not be considered as a disparagement to the telegraph enterprise.

Electric Velocity.

A correspondent states that electricity in high tension travels at the rate of *two hundred and eighty thousand* miles in one second of time: and this is the probable velocity of communications by the Magnetic telegraph. This velocity is more than 1,000,000 times as great as that of sound which travels only 1132 *feet* per second. We have no idea that the motion of sound is perfectly uniform under all circumstances, or that it is precisely the same in long as in short distances. We formerly resided in a situation near which was an echo which would distinctly repeat a sentence of three or four words at the distance of about 1000 feet, during certain states of the atmosphere, but there appeared to be an evident difference in the time of the echo at different times. Our correspondent in allusion to the artificial production of rain, gives the opinion that it might be more easily effected by heat than by noise. Our own opinion is that the production of rain by the condensation of the aqueous vapors, depends much on electrical changes in the atmosphere, and if properly understood. might be more readily effected by electrical operations than by any other method. But in this science we are not yet sufficiently advanced to propose any definite plan of operations.

CHARITY IN EARNEST.—Judge Trevor, of Georgia, during the past spring, found that many of his poor neighbors were in a starving condition, in consequence of the short crops last year, and without the means of purchasing subsistence. He accordingly procured 1150 bushels of corn and ten hogsheads of bacon from Savannah, which he distributed among them at moderate prices on a credit, to be paid for whenever they might be able.

A NATIONAL COMPLIMENT.—An English paper announces that there are 11,000 miles of railroad finished in America, and adds, "yes, and built too, it should be told, at a cost of about one-twentieth of the expense per mile of our English roads, travelled over too at one-fifth of the charge for passengers."

"Mind Your own Business."

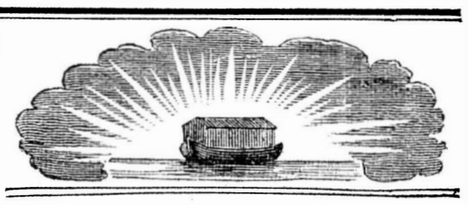
This very popular aphorism which was first rendered popular by Franklin, takes a new impulse every now and then, and still keeps passing round: but we consider it a very mean and injudicious maxim, in its common acceptation, nevertheless; for it invariably implies inattention to anything pertaining to other peoples' affairs. Hence, if one presumes to take notice of any of the common abuses of privilege practiced by others, the response is, "mind your own business." The miser, who has hoarded heaps of gold, when solicited to relieve the suffering family of a sick neighbor, says, "let every man mind his own business." The carman who is complained of for driving furiously through the streets, really wishes that people would mind their own business. If a rum-seller is reproved for dealing madness, misery, and death, to his imprudent neighbors, his first thought and desire is, that folks would mind their own business. If a committee is appointed by the Legislature to investigate the management of a Bank, the directors are apt to think that the Legislature had better mind its own business. And even if a public preacher, in the course of instructing and enlightening his audience, chances to allude to the errors of another denomination, or bears too hard on the follies and vices of a portion of his congregation, the first expression of sentiment that is heard from those interested, is, that the preacher should just "mind his own business." If a man abuses his family, his apprentices, his slaves, or his horses, and any notice is taken thereof, he is fully convinced that it is proper for every one to "mind his own business." In fine, there is no person engaged in any nefarious practice, villainy, or crime, but cherishes the popular sentiment, that every man should "*mind his own business.*"

IMPORTANT TO TRAVELLERS.—We see it asserted that some distinguished medical authority, informs the public that the great loss of life attendant upon steamboat explosions arises from the fact that people open their mouths and swallow the hot steam. The *New York Tribune* says this is very important information, and in addition to the usual labels posted about the different parts of steamboats, we shall hereafter see them conspicuously placed "keep your mouth shut when the boiler bursts."

ANTIMONY.—Having discovered large mines of copper and some silver on the borders of the great Lakes, we have now to add the discovery of antimony near steamboat navigation, on the Wisconsin river, ten or fifteen miles north of Helena, of the richest quality and in the greatest abundance, yielding as rich as the Galena or lead ore, and about 85 per cent. pure antimony. It is found where the broad field of copper ore, stretching to the north and west, crops out on the surface, and is as easily raised as the lead ore.

A POINTED BLOW.—An invalid sent for a physician and after detaining him sometime with a description of his pains, aches, &c., he thus summed up: "Now, doctor, you have humbugged me long enough with your good-for-nothing pills and worthless syrups; they don't touch the real difficulty. I wish you to strike the cause of my ailment, if it is in your power to reach it." "It shall be done," said the doctor, at the same time lifting his cane and demolishing a decanter of GIN that stood upon the sideboard!

MEXICAN BALLS.—There is something indescribably and irresistibly attractive in a pair of black eyes set in a female face. Sly rumors that come in private letters from the army, insinuate that the Mexicans have very faithful and serviceable weapons in their black-eyed girls who are vanquishing our men and officers by the score. So eye-balls are doing what copper balls failed most signally to accomplish.



A Duty for All.

"Let him that heareth say Come," (Rev. xii. 17,) is one of the last, and one of the most important injunctions in the scriptures of truth. No person of any sect or persuasion will understand this injunction, in any other sense than to imply that it is the duty of every man who hears and believes the christian gospel, to endeavor to exert an influence on others, to induce them to embrace it also. It is written in another place, "Who so gathereth not with me, scattereth abroad:" and there is not, probably, in the whole bible, a text which stands more prominently as a criterion to designate and distinguish between the advocates and the enemies of the christian religion, than that first quoted. It is folly for any man to suppose that he can become exempt from this duty, by employing and supporting a clerical substitute, to perform the duty for him. Every man who would not oppose christianity, must improve such means and opportunity as he can command, to influence others in its favor; and those who, by their peculiar connections with society or situation in business, can extend that influence to many at the same time, are the more inexcusable not to say censurable, if they neglect such opportunity, and the more especially so if they have no other plea or reason than the unpopularity of the cause of truth. If it is unpopular, the more need there would appear for salutary exertion to advance its popularity; and whoever neglects such exertion should at least remember, and keep constantly in mind that "He that knoweth to do good, and doeth it not, to him it is sin."

Quench not the Spirit.

Quench not the Spirit! beware, lest, grieving the Spirit, he cease to move upon your heart, and you become hardened. And O, think what it is to be hardened! It is to have all the moral and religious sensibilities of the soul deadened. It is to become reckless and unconcerned. It is to be habitually in such a frame of mind that there are no compunctions for the past—no apprehehensions for the future; deaf to all the calls of mercy, stupid under all the means of grace. It is to be habitually in such a frame of mind, that all promises and threatenings are alike disregarded, and all motives and appeals equally unavailing. As the dead man feels not the burning of the coal lodged in his bosom, nor the flinty rock the softening influences of the shower of heaven, even so it is with him whose heart is hardened. He may be in the sanctuary, but the most pungent discourses make no impression. He may witness sacramental scenes, but they inspire no solemnity—even funeral rites and the burial of the dead affect him not. Spread before him the glories of heaven—and he is not allured; point him to the torments of the damned, and he is not alarmed. Lead him to Calvary, and talk to him about the love of Jesus and his dying agonies, and he is as insensible as steel. Friends may entreat, but he heeds not; ministers may warn, but he repents not. Others may feel, but he feels not; others may weep, but he weeps not. The rock may be rived, but it is rock still. It may be broken into a thousand fragments, but there is no softening yet; and so it is with the sinner, when the drawings of heaven are resisted, and the Spirit quenched, the sinner is left to himself, and becomes incorrigible and hardened—past feeling and past hope! Let me be poor, let me be a bondman, let me be a beggar, but let me not, given up of the Spirit, be a hardened sinner! O, my God, cast me not away from thy presence, neither take thine Holy Spirit from me. Fellow sinner, take care what you do just now. You are in solemn circumstances, and great interests are at stake! Many of you are under the influence of divine drawings now, and some, perhaps, who are not fully aware of it. O remember

"God's Spirit will not always strive
  With hardened, self-destroying man;
You who persist his love to grieve
  May never hear his voice again!"

Selected.

MARY.—Who does not love the common, yet beautiful name of Mary? It is from the Hebrew, and means a "tear-drop.' What sweet and joyous hours of other days—what pleasing associations does not the very name call up in every heart! Who knows aught ill of Mary? Who does not love the name? If there is any thing gentle and valued, and womanly, what Mary that possesses it not? Was it not Mary who was "Last at the Cross. and earliest at the grave?" And was not Mary the mother of the Savior of the world.—*Ex.*

FISHER'S NATIONAL MAGAZINE.—The September number of this valuable work is received, and presents a well arranged variety of articles, original and selected, peculiarly useful and interesting to men of business and practical science. Each number of this work contains ninety-six pages,—six numbers constituting a full-sized volume, calculated to increase rather than diminish in value, as a book of reference and intelligence, for years to come. Edited and published by Redwood Fisher, Esq., at No. 161 Fulton street, for $5 per annum.

EXPRESSES SUPERCEDED.—The steamer Britannia arrived at Boston on Thursday week, and the principal news was transmitted to this city and onward by telegraph on the same day.

After hypocrites, the greatest dupes are those who exhaust an anxious existence in the disappointment and vexation of business, and live miserably and meanly, only to die magnificently rich.

POST MASTERS—Who receive this paper, will confer a special favor by mentioning the subject occasionally to scientific mechanics. The aid, also, and influence of all our kind patrons, in extending the notice and circulation of this paper, is most respectfully solicited.

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A LARGE LOT OF VALUABLE ENGRAVINGS (illustrative of new mechanical inventions,)—for sale cheap, at this office.

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REFERENCES: H Meigs and others, of the American Institute. Prof Mapes President, and C L Barritt, Actuary, of the Mechanics' Institute.

Communications, post paid, to S. FLEET.
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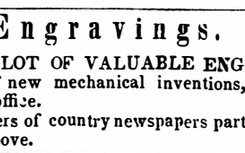

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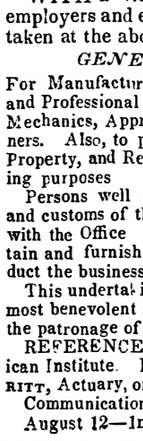

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STATE OF NEW YORK, SECRETARY'S OFFICE,
ALBANY, July 24, 1846.

TO the Sheriff of the City and County of New York: Sir—Notice is hereby given, that at the next General Election, to be held on the Tuesday succeeding the first Monday of November next, the following officers are to be elected, to wit:—A Governor and Lieutenant Governor of this State. Two Canal Commissioners, to supply the places of Jonas Earll, junior, and Stephen Clark, whose terms of service will expire on the last day of December next. A Senator for the First Senatorial District, to supply the vacancy which will accrue by the expiration of the term of service of John A. Lott on the last day of December next. A Representative in the 30th Congress of the United States, for the Third Congressional District, consisting of the 1st, 2d, 3d, 4th and 5th Wards of the City of New York. Also, a Representative in the said Congress for the Fourth Congressional District, consisting of the 6th, 7th, 10th and 13th Wards of said City. Also a Representative in the said Congress for the Fifth Congressional District, consisting of the 8th, 9th and 14th Wards of said City. And also a Representative in the said Congress for the Sixth Congressional District, consisting of the 11th, 12th, 15th, 16th, 17th and 18th Wards of said City.

Also the following officers for the said County, to wit: 16 Members of Assembly, a Sheriff in the place of William Jones, whose term of service will expire on the last day of December next. A County Clerk in the place of James Conner, whose term of service will expire on the last day of December next, and a Coroner in the place of Edmund G. Rawson whose term of service will expire on the last day of December next.

Yours, respectfully,
N. S. BENTON, Secretary of State.

Sheriff's Office, New York; August 3d, 1846.

The above is published pursuant to the notice of the Secretary of State and the requirements of the statute in such case made and provided for. WM. JONES,
Sheriff of the City and County of New York.

☞ All the public newspapers in the County will publish the above once in each week until election, and then hand in their bills for advertising the same, so that they may be laid before the Board of Supervisors, and passed for payment.

See Revised Statutes, vol. 1, chap. vi. title 3d, article 3d—part 1st, page 140. aug 18 tE.

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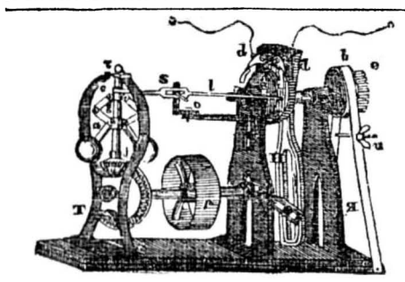

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They are built in a neat and compact form, and printed directions accompany each machine, which will enable any mechanic to put them in operation; as a general rule the different numbers are adapted to different sized wheels, as follows;

For over-shot or breast wheels, 3 feet buckets, No. 5; 5 or 6 feet buckets, No. 4; 6 to 10 feet buckets, No. 3; 8 to 15 feet buckets, No. 2; 12 to 20 ft. buckets, No. 1; greater than 20 feet, No. 1 extra.

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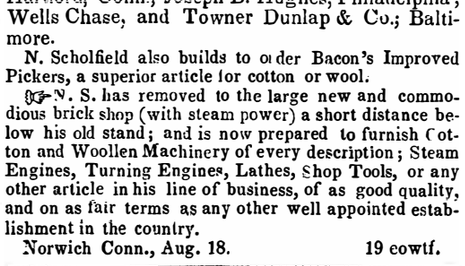

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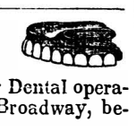

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